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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,049	05/04/2001	Marcos Katz	P 278027	8228

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EXAMINER

GELIN, JEAN ALLAND

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/831,049

Applicant(s)

KATZ, MARCOS

Examiner

Jean A Gelin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3, 6-13 and 16-20 is/are rejected.
7) ☒ Claim(s) 4, 5, 14 and 15 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 04 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 4 is objected to because of the following informalities: the phrase "the amplifier" should be --one of the amplifiers--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 6-13, and 16-20 are rejected under 35 U.S.C. 102(b) as being by anticipated by Kotzin (US 5,455,962).

Regarding claims 1, 2, 11, and 12, Kotzin teaches a data transmission method used in a radio system comprising a subscriber terminal (10) and at least one base station (21) which transmits signals to the subscriber terminal by means, of its antenna (22, 23) (col. 3, lines 19-30), characterized by determining the quality of the signals received by the subscriber terminal by comparing the received signals with at least one signal quality threshold level (col. 5, line 59 to col. 6, line 25), sending to the base station (23), which transmitted the signal that exceeded the threshold, information on the antennas, which transmitted the signals that exceeded the threshold, or on the transmission directions from which the signal that exceeded the threshold was received (col. 5, lines 50 to col. 6, line 25), selecting from the antennas, which transmitted the

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signal that exceeded the threshold, an antenna or antennas to continue the transmission of the signal to said subscriber terminal (23), or selecting from the transmission directions, from which the signal that exceeded the threshold was received, a transmission direction or directions, to which to continue the transmission of the signal to said subscriber terminal (col. 5, line 50 to col. 6, line 43).

Regarding claims 3 and 13, Kotzin teaches when the quality of several signals is within the acceptable levels, information on the quality of the signals is sent to the base station (23), and the base station can, on the basis of the information, decide which antenna or direction it will use to continue transmitting the signal (col. 6, lines 1-43).

Regarding claims 6 and 16, Kotzin teaches if the quality of the signal received by the subscriber terminal (10) is below the lowest acceptable quality level, information on the quality of the above-mentioned signal is sent to the base station which, after receiving the information, interrupts the transmission of the poor-quality signal (col. 6, lines 11-25).

Regarding claims 7, 9, 17, and 19, Kotzin teaches the signal is transmitted to the subscriber terminal (10) by means of beams, and the final decision on the transmission antenna, transmission direction or beam to be used by the base station is made in the base station (21) (col. 5, line 59 to col. 6, line 10).

Regarding claims 8, 10, 18, and 20, Kotzin teaches the signal is transmitted to the subscriber terminal (10) by means of beams, and the final decision on the transmission antenna, transmission direction or beam to be used by the base station is made in the subscriber terminal (10) (col. 6, lines 11-43).

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Regarding claims 7 and 17, Kotzin teaches the transmission beam of the base station causing the least interference is selected and the selection decision is made in the base station (100).

Allowable Subject Matter

4. Claims 4, 5, 14, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: the prior art teaches selecting the antenna from a plurality of antennas that provides the clearest signal quality.

On the other hand, the Applicant teaches the signals transmitted by the base stations are amplified by amplifiers (121), and in the method, the antenna which is connected to the amplifier with the lowest load is selected as the transmission antenna. This limitation, in conjunction with all limitations of the independent claims, has not been disclosed, taught, or made obvious over the prior art of record.

The Applicant further teaches the signals transmitted by the base stations are amplified by amplifiers (121) before transmission, and in the method, the selection decision is made on the basis of the load situation of the amplifiers. This limitation, in conjunction with all limitations of the independent claims, has not been disclosed, taught, or made obvious over the prior art of record.

Conclusion

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6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ichihara et al. (US 5,809, 019) teaches transmission diversity system.

Ishikawa et al. (US 5,640,678) teaches communication with minimal mobile channel handoff.

Yun et al. (US 6,600,934) teaches method and device for providing selection transmit diversity in mobile communication system.

Kakura et al. (US 6,415,141) teaches diversity receiver and method by detecting signal strengths in successive stages.

Shen et al. (US 6,483,884) teaches antenna diversity switching system for TDMA-Based telephone.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean A Gelin whose telephone number is (703) 305-4847. The examiner can normally be reached on 9:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (703) 305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JEAN GELIN
PATENT EXAMINER

JGelin
February 4, 2004

Jean Aland Gelin